U.K. banks must come up with £25 billion ($37.92 billion) in fresh capital this year, the Bank of England warned on Wednesday, piling pressure on partly state-owned banks Royal Bank of Scotland Group PLC and Lloyds Banking Group PLC to step up the pace of asset sales.

The Bank of England’s Financial Policy Committee said lenders must raise their capital buffers to protect them from the weak domestic economy and euro-zone crisis, following a three-month study. But the figure was lower than some analysts had expected. Gov. Mervyn King, a member of the FPC, said the shortfall isn’t "an immediate threat to the banking system and the problem is perfectly manageable."

How the capital will be raised wasn’t immediately clear. Bank of England Deputy Gov. Andrew Bailey, who also sits on the FPC, said around half of the £25 billion is already in banks' plans for the year. The most common ways for lenders to improve their capital positions are to issue new shares, retain earnings or reduce their overall assets.

RBS and Lloyds, the two banks seen by analysts as having the biggest need in the sector for fresh capital, have been selling loan portfolios and stakes in publicly listed companies. Both reported net losses for 2012. The government previously said it wouldn’t buy new shares in the two banks, making any stock issues a remote possibility.

A person familiar with the matter said Lloyds needs about £2.5 billion in additional capital. Two weeks ago, the bank added around £600 million to its reserves by selling a 20% stake in St James’s Place PLC. It still holds 37% of the wealth manager but has agreed not to sell any more shares until March 2014.

Citigroup analysts said Lloyds and RBS collectively should be able to free up around £5 billion under their existing plans to reduce the size of their balance sheets by selling assets and exiting businesses.

Mr. King and other Bank of England officials have for months been urging banks to issue new shares and restructure their businesses. But they have stressed that improvements to banks' financial health must not come at the expense of the economy and new lending to households and businesses. Lending has contracted since 2008 as banks have got to grips with unsustainable balance sheets that had swelled in the boom years before the financial crisis. That lack of lending in turn has been held up by politicians as a major cause for the U.K.’s continuing economic weakness.

"Far from reducing lending, today's recommendations will support lending and promote growth. A weak banking system does not expand lending. The better-capitalized banks are the ones expanding lending, and it is the weaker-capitalized banks that are contracting lending," Mr. King said on Wednesday.

The FPC said the immediate objective for banks should be to hold at least 7% in common equity against their...
risk-weighted assets by the end of the year, after making three key adjustments for potential loan losses, higher risk weights on assets and the costs of past misconduct. It said some banks already exceed that target, but that there was an aggregate £25 billion gap across the country's major banks and building societies at the end of 2012.

It said banks could also be subject to regular stress tests in the future.

—David Enrich contributed to this article.

Write to Margot Patrick at margot.patrick@dowjones.com and Jason Douglas at jason.douglas@dowjones.com